WHAT IS CLAIMED IS:

1. A degassing microarray element comprising:
(a) a substrate having a surface comprising at least one gasket; and
(b) a gas permeable membrane.

2. The degassing microarray element of Claim 1, wherein said gas permeable membrane is permeable at least to one of: helium, hydrogen, neon, nitrogen, argon, oxygen, ozone, carbon dioxide, ozone, and combinations thereof.

3. The degassing microarray element of Claim 1, wherein said gas permeable membrane is chosen from: nylon; polyimide, polysulfone; polycarbonate; cellulose acetate; perfluoro-2,2-dimethyl-1,3-dioxole; perfluoroalkoxy fluorocarbon, ethylene tetrafluoroethylene; polytetrafluoroethylene; polytetrafluoroethylene; and amorphous fluoropolymeric membranes.

4. The degassing microarray element of Claim 1, wherein said gas permeable membrane is an amorphous fluoropolymeric membrane comprising about 87 mol% 2,2-bistrifluoromethyl-4,5-difluoro-1,3-dioxole and about 13 mol% tetrafluoroethylene.

5. The degassing microarray element of Claim 1, wherein said gas permeable membrane has a thickness that ranges from about .01mm to .25mm.

6. The degassing microarray element of Claim 1, wherein said gas permeable membrane is non porous.

7. The degassing microarray element of Claim 1, wherein said gas permeable membrane is present on a porous support.

8. The degassing microarray element of Claim 7, wherein said porous support is a separate component from said substrate.

9. The degassing microarray element of Claim 7, wherein said porous support is not a separate component from said substrate.

10. The degassing microarray element of Claim 7, where in said porous support comprises pores having an average pore diameter ranging from about .0001 mm to about .001 mm.

11. The degassing microarray element of Claim 1, wherein said gas permeable membrane is positioned on said gasketed substrate surface.

12. The degassing microarray element of Claim 1, wherein said gas permeable membrane is positioned within said substrate.

13. The degassing microarray element of Claim 12, further comprising at least one channel configured for transporting fluid present on said gasketed substrate surface to said gas permeable membrane for degassing and for transporting degassed fluid from said gas permeable membrane to said gasketed substrate surface.

14. The degassing microarray element of Claim 1, wherein said substrate is a microarray backing element substrate and said degassing microarray element is a microarray backing element.

15. The degassing microarray element of Claim 1, wherein said substrate is an array substrate and said degassing microarray element is an array assembly.

16. The degassing microarray element of Claim 1, further comprising at least one port for transporting fluid from a first side of said micorarray element to a second side of said backing element.

17. The degassing microarray element of Claim 1, further comprising at least one mixing element.

18. The degassing microarray element of Claim 1, wherein said gasket is fixedly attached to said substrate.

19. The degassing microarray element of Claim 1, wherein said gasket is not fixedly attached to said substrate.

20. A system for degassing a fluid contacted with an array assembly, said system comprising:

(a) a degassing microarray-backing element comprising

(i) a substrate having a surface comprising at least one gasket, and

(ii) a gas permeable membrane; and

(b) an array assembly.

21. The system of Claim 20, further comprising a vacuum source operatively associated with said gas permeable membrane.

22. The system of Claim 20, further comprising at least one mixing element.

23. The system of Claim 22, wherein said at least one mixing element is present within or on said degassing microarray-backing element.

24. The system of Claim 20, wherein said gasket is fixedly attached to said substrate.

25. The system of Claim 20, wherein said gasket is not fixedly attached to said substrate.

26. A system for degassing a fluid contacted with an array assembly, said system comprising:

(a) an array assay station comprising a gas permeable membrane; and

(b) an array assembly.

27. A method of performing an array assay, said method comprising contacting a sample with an array under conditions sufficient to perform an array assay, wherein said contacting further comprises degassing said sample.

28. The method of Claim 27, wherein said degassing comprises evacuating gaseous components through a gas permeable membrane by applying a vacuum to a gas permeable membrane.

29. The method of Claim 28, wherein said applied vacuum applies a pressure that ranges from about 12 psi to about 14.5 psi.

30. The method of Claim 28, wherein said gas permeable membrane is non porous.

31. The method of Claim 28, wherein said gas permeable membrane is substantially the same size as said array.

32. The method of Claim 27, wherein said degassing reducing the amount of dissolved gases in said sample.

33. The method of Claim 27, wherein said degassing comprises reducing the amount of un-dissolved gases in said sample.

34. The method of Claim 27, wherein said contacting further comprises mixing said sample.

35. The method of Claim 27, further comprising reading at least one array to obtain a result.

36. A method comprising transmitting a result obtained by a method of claim 35 from a first location to a second location.

37. The method of Claim 36, wherein said second location is a remote location.

38. A method comprising receiving said result obtained by the method of Claim 35.

39. A kit for performing an array assay, said kit comprising:

(a) a backing element comprising:

(i) a substrate surface comprising at least one gasket, and

(ii) a gas permeable membrane; and

(b) an array assembly.